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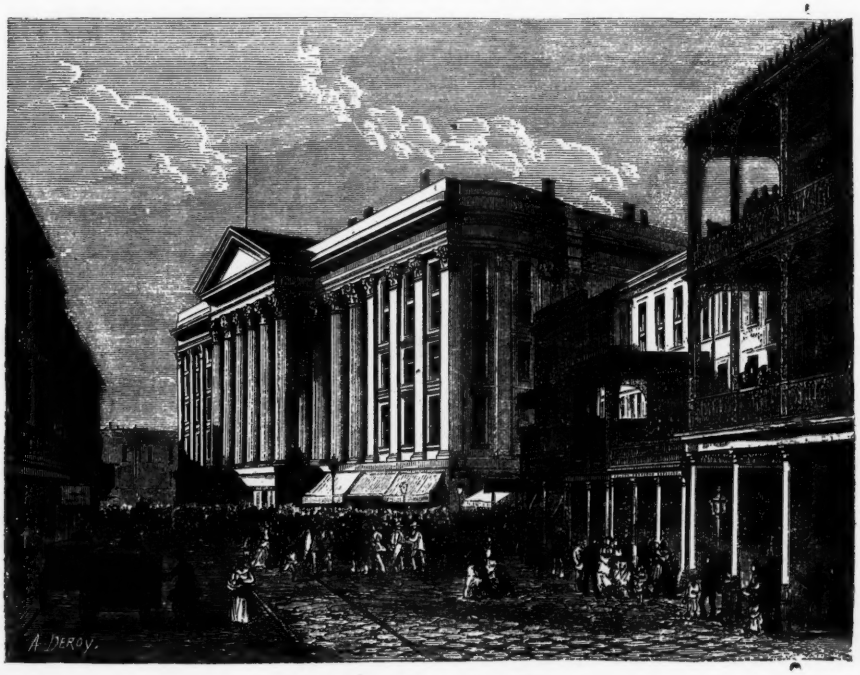
THE CRESCENT CITY.



St. Charles Hotel—Headquarters of the A. P. A.

THOSE who attend the meeting of the American Pharmaceutical Association on the 27th inst. have a great pleasure in prospect, for New Orleans is unique in its character as an American city. It is one of the oldest, having been founded in 1718, and until a comparatively recent period has been as essentially a foreign town in its population, language, architecture, social customs, and many other prominent features, as if it were in Southern Europe or Central America. It still exhibits on every side the evidences of its French origin, and the thirty-eight years of Spanish rule (1762 to 1800) served to impart to it still further the characteristic marks of its Latin parentage.

In 1799 the French wars led to immigration of Creoles from the West Indies, which doubled the population and served to strengthen still more the foreign element of its inhabitants.

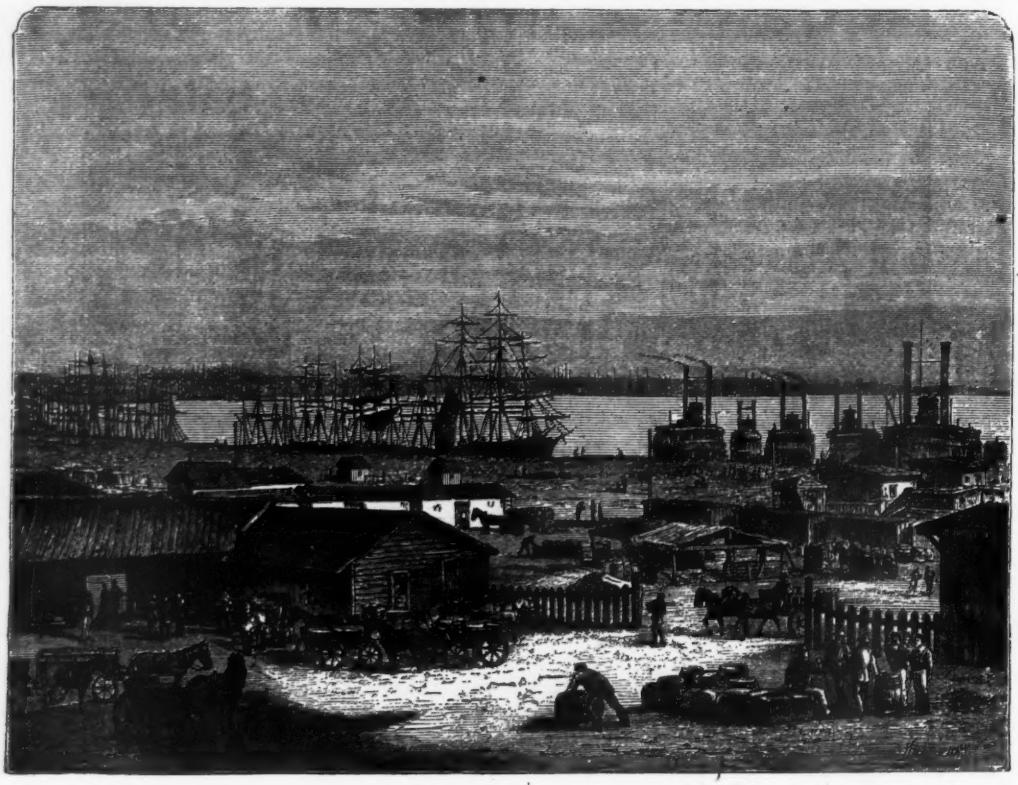
As a commercial centre New Orleans has natural advantages which are not equalled by any other port in the world. Its water communication with the interior of the country is 15,000 miles in extent, and stretches from the State of New York on the east to the base of the Rocky Mountains on the west, and from the Gulf of Mexico 2,000 miles to the northern line of the United States. Twenty-nine States and Territories furnish the water which flows past its wharves, and navigation is open into sixteen of them. In 1860 New Orleans ranked next to New York in the value and amount of her commerce, which amounted to $324,000,000; and she has been rapidly gaining the ground lost during the war and the political disturbances of subsequent years, through the artificial deepening of the channels at the mouth of the Mississippi since 1879, thereby increasing the facilities for the passage of the largest vessels and steamships. Cotton, sugar, rice, and tobacco from Southern States; coal, lumber, pork, and grain from further points, cover the wharves and fill the warehouses, and the vessels which carry them to other countries there exchange their foreign wares.

The approach to New Orleans by the Q. & C. R. R. is remarkable for the character of its roadway. The train passes over a bridge, seven miles long, which crosses an arm of Lake Pontchartrain. Either end is connected by a trestlework with *terra firma*. The total length of bridge and trestlework is about 22 miles.

On arriving at the city the visiting members will find

ready means of reaching the hotel by the cars, hacks, or omnibuses. The St. Charles Hotel has been selected as the headquarters of the A. P. A. It has a capacity for 1,000 guests. When erected in 1852 (at a cost of more than a half-million of dollars) it was the largest hotel in the country. Five minutes' walk is its distance from Artillery Hall, where the meeting will be held. This building is perfectly adapted for the purposes of meeting and exhibition. It has been engaged for one week, giving the exhibitors abundant time to prepare their displays.

The city is built on the left bank of the Mississippi River, which there runs in a magnificent curve, giving the outline a convex form on the city side, from which its title of " The Crescent City " is derived.



View of the Harbor and Levee at New Orleans.

The Mississippi at this point has a width of 3,000 feet and an average depth of 100 feet; and as the current exceeds five miles an hour at high water, some idea of its immense volume may be formed. A break in the bank, opposite the city, of several hundred feet in width, has lately occurred. The rush of water through the gap reminds one of the rapids above Niagara, save for its color; and the roar can be distinctly heard at the distance of a mile. A visit to the crevasse will be included in the entertainment as part of the river excursion on Thursday morning.

This outflow of water is owing to the fact that in consequence of the deposit of mud on its bottom the bed of the river, for many miles above its mouth, is gradually raised until the surface of the water is higher than the adjoining country, and the river has to be restrained by embankments. At New Orleans the river is so much higher than the level of the town that the surface drainage flows away from the river towards Lake Pontchartrain. The ground is so saturated with water that cellars are never constructed, if we except one which is said to have been made some years ago by a native of Pittsburg who ultimately became a citizen of New Orleans, and who could not be contented with a house without a cellar. It cost him a pretty pile of money to get it watertight, but he got it. This condition of things is manifestly inconsistent with the construction of sewers, and, as a consequence, the gutters have had to serve that purpose in many cases. These surface sewers are not always unobjectionable, but they *can* be cleansed and are not, like most sewers, beyond the reach of the health officers.

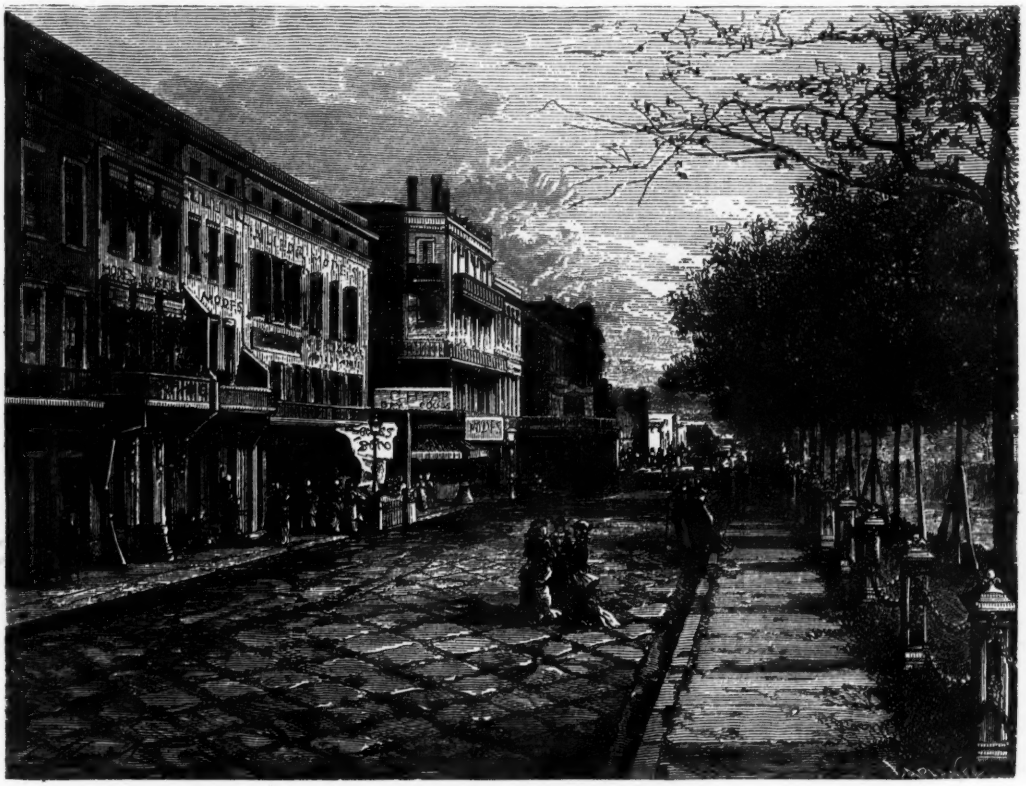
During recent years many of the 470 miles of streets have been well paved, and locomotion has been rendered correspondingly easier. In a city embracing over 150 square miles of territory this has been no trifling matter. Another good result of this improvement has been the prevention of contamination of the soil with decomposing organic matter, and a corresponding improvement in the healthfulness of the city.

In the early history of the place stockades and ditches were provided for its defence, and their site is still outlined by Canal, Rampart, and Esplanade streets. The former is at right angles to the river, and is the principal thoroughfare. It is over 190 feet wide, and has a central strip, 25 feet wide, on which the horse-car tracks have replaced the grass with which it was once covered. In this plot is also located a bronze statue of Henry Clay, which has often served of late years as a rallying point for public gatherings.

Of the resident portion St. Charles avenue may well be

considered the finest street. Its extent is over five miles in length; the road is paved with asphalt and gives a splendid drive. The houses are surrounded with ample grounds, tastefully laid out with lawns and flower beds. The orange tree in all its varieties is freely cultivated, also the banana with its luxuriant leafage. Many varieties of the palm family, whose natural habitat is within the tropics, find there a congenial clime.

There are over a dozen public squares, many of which are nicely kept. Notable among the list is Jackson Square, which fronts the old St. Louis Cathedral, a structure whose establishment dates back to the era of Spanish possession (the original building, erected by Don Andres Almonaster y Roxas, was demolished, and the present one



One Side of Canal Street, New Orleans.

took its place in 1850), adjoining which stands the district court building, formerly the presbytery of Capuchin Friars, and still later used for military purposes. In the middle of the square stands the equestrian statue of Gen. Jackson, a duplicate of the one in front of the "White House" in Washington. Jackson Square, known among the Creole population as the *Place d'Armes*, is most intimately connected with the history of the city. When the conflagrations of 1788 and of 1794 destroyed the greater part of the town, it was here that the homeless inhabitants lived under tents and booths until better accommodations were provided. In earlier days it was the parade ground of the men who defended the city against the Indians. There the girls sent by the king of France—each with their chest of clothing—were welcomed by the rough adventurers whose wives they soon became, and the *Filles à la cassette*, as they have since been known, became the mothers of many of the leading families of the State. There the citizens assembled to protest against the transfer of the territory, then known as Louisiana, to Spain, and to receive the Spanish authorities in such fashion that some of them were executed on the same spot. From there General Jackson marched his little army to the entrenchments south of the town to win the last battle of the war of 1812-15.

The French Quarter will attract the visitor, with its narrow streets and old-time style of buildings, many of which antedate the present century. The Fair Grounds, within twenty minutes' ride of the hotel, will prove an attractive place of resort. The custom house should be visited. It is an immense granite pile, square and grim externally, but whose pillared hall will challenge comparison with any in the country. A fine view of the city and river can be had from its roof, accessible at all times to the visitor.

The wholesale drug business is carried on principally by three houses, J. L. Lyons & Co., E. J. Hart & Co., and Finlay & Brunswig. Their combined sales amount to about $3,000,000 annually. The retail drug business numbers about 200 establishments, the majority of whom are in prosperous circumstances, which is largely due to the absence of cutting.

There are two pharmaceutical associations—the State, organized in 1882, and the Parish, or City, in the following year. The former has a membership of about 150 and the latter about 50.

A pharmacy law was enacted in 1888, and a Board of

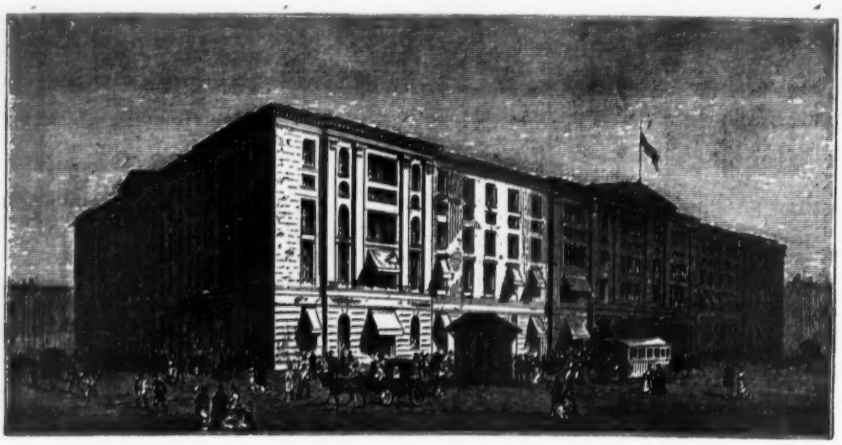
Pharmacy of nine members was appointed. The good effects of the law are beginning to be felt.

The impression prevails that the climate of New Orleans is oppressively hot in the beginning of May, but this is an erroneous one. The range of temperature runs from 72° to 80° F., and not often is the latter figure exceeded. Of course overcoats and heavy clothing are out of place. One can keep very comfortable by the use of light apparel. The prevailing direction of the wind is southerly; and as the Gulf of Mexico is but a few miles distant, its cooling influence is felt, and the nights are very pleasant.

A unique feature of New Orleans is its mode of sepulture. The saturation of the ground prevents the excavations of graves, so that coffins are placed in vaults, like pigeon holes, erected in tiers above ground. One of the illustrations shows such a series of tombs in the Girod Cemetery. This and the Metairie and Greenwood Cemeteries will well repay those who may visit them.

We lack space for description of many of the beautiful public buildings which exist, but will barely mention the Tulane University of Louisiana (incorporated in 1849), a picture of whose classic building is here shown, and is well worth a visit.

Tulane University of Louisiana, New Orleans.



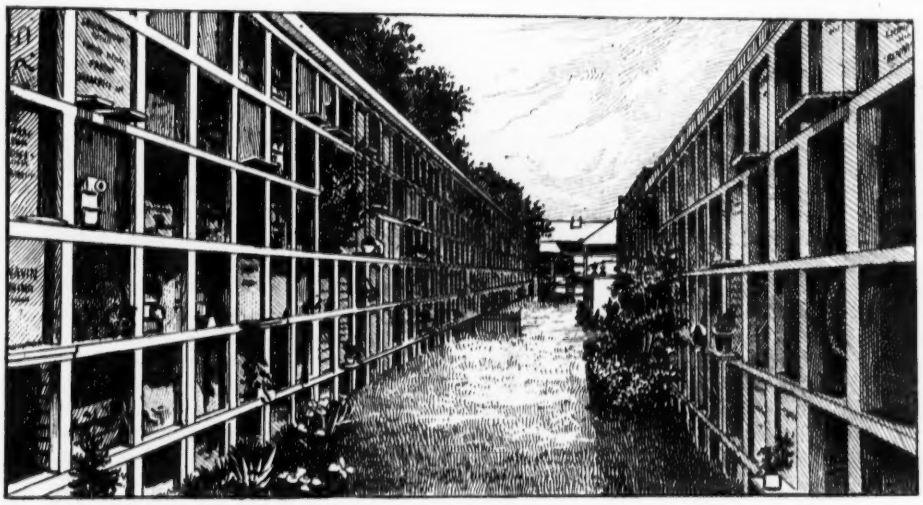
United States Custom House at New Orleans.

Another Cure for Tuberculosis.

ANOTHER cure for tuberculosis is advocated by Dr. Jeannoutot, a young but already prominent medical practitioner of Paris. His process is as follows: Spirit is heated in a lamp to 148° F. [248° F. in the original, which is evidently a misprint], and connected by a yard of india-rubber tubing to a copper vessel the size of a teacup.

Cathedral of St. Louis and Jackson Square, New Orleans.

This vessel contains a mixture of oil of eucalyptus, beech-tar creosote, hydrocyanic acid, oil of bitter almonds, and thymol. The liquid gives off a strong aromatic odor, and a thick vapor to be inhaled by the patient. A room is heated to 140° F., the temperature needed to open the pores of the human skin. The patient is introduced clad only in bathing dress, and thus takes in the restorative air bath both by his lungs and through his pores. The steam, though very strong, does not interfere with respiration. One hundred Gm. of the solution poured in a copper receptacle suffice to steam patients for three hours consecutively. This treatment is supplemented by doses of a compound principally formed of beech-tar creosote and phosphate of lime, a varied diet, and plenty of fresh air. Dr. Jeannoutot further states that tuberculous expectorations, containing numerous bacilli, have been completely sterilized by the action of this vapor—so thoroughly, in fact, that guinea pigs could afterwards be inoculated with the germs in question without the slightest result, though before such sterilization the effects distinctly showed the development of tuberculosis. He adds that he has submitted his remedy to the Academy of Medicine and feels sure that a cure has been discovered.—Paris Correspondent of *Chem. and Drugg.*



Vaults in the Girod Cemetery, New Orleans.

Antipyrin and Mercuric Chloride.—Petsche (*Pharm. Rundsch. Prag.*) has observed that when cold solutions of antipyrin and mercuric chloride are mixed a white precipitate is produced. On heating to boiling this disappears, but by protracted boiling a brown, resin-like body is precipitated which, when separated, dissolves in nitric acid and is colored scarlet by sulphuric acid. The nature of this resin-like subtance has not yet been determined.

[ORIGINAL COMMUNICATION.]

A USEFUL BUT DANGEROUS PRESCRIPTION.

BY

A. E. PHILIPS, DRUGGIST,

Vice-President Florida Pharmaceutical Association,

Sanford, Orange Co., Florida.

℞ Atropia Sulph .....grs. iv.
Bismuth Sub. Nit.... ... ℥ iss.
Hydrarg. Chlor. Mite..... ℥ ss.
M. thoroughly. Sig.: Keep sore covered with the powder.

THIS prescription was in the hands of a stranger and was a well-worn copy. The original was said to have been prescribed, by an eminent medical college professor of Chicago, for an ulcer on the leg of two years' standing from which the bearer was then suffering. All previous remedies had failed, but the ulcer yielded to this prescription, its severe and long-continued pain subsiding instantly, and final healing being induced *in a few days.*

The scar left by this ulcer was shown, and was quite as large as a silver dollar. The owner said the sore presented an indolent surface of about this size, perhaps, one-eighth of an inch below the surface of the surrounding skin, and this cavity was kept *filled* with the powder, a simple bandage being applied and no washing or other dressing used. He had been well for years, the trouble never returning. Within that time he had, in his travels, furnished a copy of the prescription to a number of persons suffering from ulcers. In one case an ulcer was larger than his, with four smaller ones on the same leg, and in each and all cases the result was the same as in his own: the pain ceased at once and the healing process was almost magical.

It must be borne in mind that the powder contained one-fourth of a grain of sulphate of atropia to each drachm, and the instructions being to "keep the sore covered," other patients than the original probably *filled* the ulcerous cavities, which must in some instances have required at least one, and in others possibly two, drachms. Thus from one-fourth to one-half of a grain of this dangerous ingredient entered into a first dressing, and more followed at intervals in "keeping the sore covered" or "filled."

Fortunately, in all these cases, as stated, the results were most happy, accompanied by no serious circumstances. But another occurred under the observation of the writer in which very alarming symptoms appeared, and but for timely relief the termination might have been fatal. A gentleman suffering from some eczematous affection of the lower limbs made, during maddening paroxysms of itching, some heroic applications of severe remedies to the parts, which, on one foot, had caused the skin to slip, leaving exposed about four inches square of bare flesh, and from this a watery discharge was issuing, the itching unabated, alternating with great pain. Hearing of this wonderful ulcer cure, he procured a copy of the prescription, had it prepared, and, removing his emollient dressing, proceeded to "cover" all this surface with the powder, besides applying a little more to two inches square on the knee of the opposite limb, from which the cuticle had been scratched.

Within five minutes, perhaps, the patient detected a slight bitter taste in the mouth, and dryness of the salivary glands, tongue, and whole mucous lining quickly followed. Recognizing the toxic effects of belladonna, but being so anxious to heal his troublesome foot, he determined to risk the danger a little further, and within ten minutes took twenty-five drops of laudanum, hoping a little antidotal treatment would enable him to "tide over" and still retain his curative dressing. The belladonna, however, gained ground, the pupils became quite dilated, and the dryness of the mouth, extending well back to the fauces and somewhat down the throat, increased speedily. The dose of laudanum was repeated and a physician sent for, while the powder was washed off both foot and knee. This was about fifteen minutes after its application. The doctor arrived five minutes later and immediately administered one-half of a grain of sulph. morphia hypodermically. By this time the patient was unable to void urine, was talking rapidly, though too hoarse to speak distinctly, eyes were glassy, countenance anxious, lower limbs considerably paralyzed, and slight dizziness of the head was approaching. At this juncture a crisis seemed to have been reached in the struggle between those two powerful foes, belladonna and opium, and the battleground was trembling beneath them; but the reinforcement of another one-fourth grain of morphia hypodermically, five minutes later, decided the mastery. The antidote had won the victory.

The violent symptoms now being subdued, and the patient yielding to morphine stupor, he was put to bed and sank into a deep sleep of seven or eight hours' duration. It was several hours later before the paralysis of his hips and lower limbs had diminished sufficiently to enable him to walk across the room, and some days before all the functions of the body regained their normal condition. No further treatment became necessary, except laxative to offset the constipating effects of the opium.

The explanation of what casually appears to be an inconsistency in these experiences is simple: The indolent surface of an old ulcer could not absorb the atropine and pass it into the circulation, as did the freshly denuded cuticle, or other patients, using the remedy in as large or larger proportions, would have been in equal danger. Nevertheless, it is apparent that if applied as freely to a healthy ulcer the result might have been serious; and such a prescription, in the hands of the inexperienced or those ignorant of its deadly poison, is apt to be applied to any obstinate sore place. Hence the utmost caution should be exercised by the physician in directing the use of, and the patient in applying, so dangerous a remedy.

In conclusion it may be stated as an interesting fact that the knee was almost entirely well, and about half (or two inches square) of what had been bare flesh on the foot exhibited a tender membranous covering over the surface, within about twenty-four hours after the powder had been applied, it having been allowed to remain only fifteen minutes; the watery discharge from this portion had ceased, and greatly diminished from the remainder, and the whole, yielding to soothing remedies, rapidly healed.

MARCH, 1891.

NOTE:—The latter patient had never been accustomed to the use of opiates in any form, and the fact that 50 drops of laudanum and ¼ gr. of morphine were needed for antidotal service within twenty minutes furnishes other evidence of the serious extent of belladonna poisoning in his case. P.

[ORIGINAL COMMUNICATION.]

FLUID EXTRACT OF IPECAC.*

BY
PROF. J. U. LLOYD,
Cincinnati, O.

STUDY OF MENSTRUUMS.

In devising a method for making fluid extract of ipecac that shall conform to an assay value, basing the standard on proportion of emetine, we necessarily meet with factors that, as has been shown by preceding papers, have not been prominent heretofore.* The fluid extract might conform to the descriptions of the U. S. P. in its sensible behavior and be very inferior otherwise, as demonstrated by assay, and the syrups made of it might be transparent and yet comparatively worthless from an emetine standpoint; hence it is necessary that a study of the action of menstruums on ipecac be made, if we hope to arrive at conditions which will prove most suitable for making the fluid extract, from an emetine standard. I therefore offer the following comparisons, stating, however, that it was not my endeavor to produce the best *possible* results. Had this been the aim I would have used dusted ipecac and long maceration, consuming weeks in the manipulation. Busy manufacturers and apothecaries desire economy of time as well as of material, together with simplicity of method, and I therefore present a line of investigations that bear upon the subject from an ordinary and not extraordinary standpoint. I believe that:

1. We must extract the drug economically, quickly, and effectually.

2. We must make an eligible fluid.

With a view to this object the following experiments are offered, and I will repeat that no extraordinary precautions were taken in the manipulation, the object being to arrive at comparative results of what might be considered the usual work of a laboratory. In reference to this point, it seems to me that, for the purpose of establishing processes that are expected to be of general utility, experiments should be made without extraordinary attention as to details. The result should be such as to show what is possible under the conditions that govern the ordinary manipulator. If we exert ourselves in experimenting in order to produce the best possible results, surrounding ourselves with the most approved forms of apparatus, and give more skill and attention to the experiment than is practical with the busy manufacturer or apothecary, it seems to me that we overshoot the mark. Probably I now voice the sentiments of the majority of druggists; for to place the shop preparations of the U. S. P. on a standard above average possibilities would doubtless throw the making of that class of substances entirely into the hands of manufacturers, and also prevent apothecaries from growing into manufacturers.

Two hundred pounds (16 troy ounces calculated to the pound) of ground ipecac, with assayed value 2.5 per cent emetine, were divided into three parts.†

1. One hundred pounds were moistened with officinal alcohol (0.820), and, after macerating twenty-four hours, percolated until 116 pints of percolate were obtained, which were reserved. Then a second percolate was run off.

1st 116 pints assayed	0.28	per cent.	emetine
2d 116	"	"	0.06	"	"	"

The percolate that followed was below grade for profitable extraction. The loss of alcohol and time, with a downward yield from 0.06 per cent emetine, would not warrant further percolation. The menstruum was then changed to a mixture of alcohol 3 parts, water 1 part, by measure, and the percolation continued.

1st 116 pints assayed	0.48	per cent	emetine
2d 116	"	"	0.24	"	"	"

The menstruum was again changed to a mixture of alcohol 2 parts, water 1 part, by measure; 116 pints were percolated, which assayed 0.24 per cent emetine. From this the strength of the percolate ran rapidly down until the yield of emetine was less than its calculated value.

Experiment 2.—Fifty pounds of ipecac were moistened and percolated with a mixture of alcohol 2 parts, water 1 part, by measure.

1st 58 pints assayed	1.24	per cent	emetine
2d 58	"	"	0.52	"	"	"
3d 58	"	"	0.32	"	"	"

From this the emetine value of the percolate ran rapidly down until the emetine obtained was insufficient to repay the expense of further manipulation.

Experiment 3.—Fifty pounds of ipecac were moistened with a mixture of alcohol 2 parts, water 1 part, acetic acid 5 per cent.

1st 58 pints assayed	1.17	per cent	emetine
2d 58	"	"	0.59	"	"
3d 58	"	"	0.34	"	"

From this the emetine value of the percolate ran rapidly down until the emetine obtained was insufficient to repay the expense of further manipulation.

Remarks.—The first (U. S. P.) experiment was given the advantage for extraction, as was intended. The height of material in the percolator was nearly twice that of the others, and the time consumed in making the percolation was correspondingly longer. Every chance was given that process, and yet analysis of the result shows striking defects:‡

The first percolate, 116 pints, gave a total per cent (brought by calculation to 1 pint) of	32.48	per cent	emetine
The second percolate, 116 pints, gave a total per cent (brought by calculation to one pint) of	6.96	"	"
The combined 232 pints gave (calculated)	39.44	"	"

Which shows that if the total percolate had been reduced to the officinal bulk in the usual method of making fluid extract of ipecac, that fluid extract would have assayed (by calculation) only about 0.40 of 1 per cent emetine.

If the operation had been suspended now (the percolation had been carried to its economical limit with the officinal menstruum) the 100 pounds of ipecac would, by calculation, have only made about 26½ pints of fluid extract of ipecac that would conform to a test of 1.5 per cent of emetine. It is also evident that, since the crude ipecac assayed 2.5 per cent emetine, only about one-sixth the possible value of the drug had been thrown into the percolate. The change in menstruum that followed demonstrated the superiority of a mixture of alcohol 3 parts, water 1 part, as an abstractor; for, notwithstanding the

* Continued from page 84.

previous apparent exhaustion of the drug when the menstruum was changed to alcohol 2, water 1,

The first 116 pints of percolate abstracted (calculated to 1 pint)..	55.68	per cent emetine
The second 116 pints of percolate abstracted (calculated to 1 pint).....	27.84	" "
The combined 232 pints of percolate abstracted (calculated to 1 pint).....	83.52	" "

which was more than twice the amount abstracted by the action of the U. S. P. menstruum on undisturbed ipecac.

The menstruum that followed this (alcohol 2 parts, water 1 part) gave evidence of superiority over the second menstruum, for 116 pints of percolate gave a total (calculated to 1 pint) of 27.84 per cent emetine, the same as that yielded by the preceding percolate. It follows, therefore, that the total percolates gave a combined percentage of 150.80 per cent emetine (calculating the entire percolate to 1 gallon), showing that if they could have been concentrated to 100 pints without loss of emetine the fluid extract would have assayed 1.50 per cent. emetine. The loss of emetine from possible amount (the drug containing 2.50 per cent) is to be accounted for by the rambling method of manipulation. This experiment is given to illustrate the fact that after the U. S. P. menstruum had apparently exhausted the drug, the marc was of more value than the extract obtained therefrom, as is shown, if I have not made mistakes, both by the calculation and the experiments.

The second experiment shows that with a menstruum made of alcohol 2 parts, water 1 part,

50 pounds of ipecac gave to first percolate, 58 pints (calculated to 1 pint).....	71.92	per cent emetine
50 pounds of ipecac gave to second percolate, 58 pints (calculated to 1 pint).....	30.16	" "
50 pounds of ipecac gave to third percolate, 58 pints (calculated to 1 pint).....	18.56	" "
A total 174 pints (calculated to 1 pint)	120.64	" "

If this percolate could have been concentrated to 50 pints without loss of emetine, the fluid extract would have represented 2.40 per cent emetine—nearly the possible theoretical yield of the ipecac.

The third experiment demonstrates that the addition of a little (5 per cent) acetic acid to the menstruum gave no appreciable advantage so far as emetine exhaustion is concerned. The first percolate was a trifle weaker, the second and third each a trifle stronger, the aggregate of corresponding amounts being:

Without acetic acid, total emetine extracted	120.64 per cent.
With acetic acid, total emetine extracted	121.80 "

the difference in favor of the acid—1.10 per cent—being so small as to show that it might have resulted from unforeseen causes, and was at least so slight as to render its use immaterial.§

To Sum Up—The present officinal menstruum is not, under comparative tests with ground ipecac, according to these experiments, the proper menstruum to abstract ipecac of its natural alkaloid, more than five-sixths being lost in this example. The proportion of loss is less in using finely powdered ipecac than in using the ground drug; but on a large scale it is expensive and nearly impractical to employ the dusted powder. Besides, there is a comparative inferiority, even in using a dusted powder.

The use of a menstruum composed of alcohol 2 parts, water 1 part (by volume), is preferable to the officinal (alcohol 0.820) in the ratio, as shown by the experiments herein introduced, of

Officinal method, 39.14 that 100 pounds of ipecac yielded to 232 pints percolate;
Alcohol 2, water 1 (mixed), 102.08 that 50 pounds of ipecac yielded to 116 pints percolate,
which, brought to identical amounts, would show:

Officinal method, 39.14 from 100 pounds ipecac,
Alcohol 2, water 1, 204.16 from 100 pounds ipecac.

This latter menstruum is shown, by the experiment introduced, to be capable of nearly extracting the theoretical amount of emetine from ground ipecac, if a percolate three times its weight is obtained, and it is evident that a mixture of alcohol 3 parts and water 2 parts is better still and will practically abstract the emetine. It follows, therefore, from a consideration of this first step, that manufacturers who use finely ground ipecac (as is necessary, I believe, on a large scale) and conform strictly to the U. S. P. menstruum will not produce fluid extract of ipecac that assays favorably in emetine with fluid extracts that are made by those who adapt the menstruum to the object, and who afterward complete the operation so that the finished fluid extract conforms, as a syrup basis, to the U. S. P. requirements.

Manufacturers and apothecaries who follow the present U. S. P. strictly can, in my opinion, neither compete in price nor quality with those who deviate therefrom and adopt rational methods to attain the desired end, and they will unjustly suffer in reputation if their preparations are assayed for emetine at the present time.¶ Strange as it may seem, the manufacturer who, with the utmost integrity, can say that he followed the U. S. P. may be mortified to find his preparation of low grade as compared with others made of even an inferior drug, by means of a cheaper menstruum, and at less expense. It would not surprise me to find an average of less than 0.50 per cent emetine in much of the fluid extract of ipecac that is made by the present officinal process.

The foregoing line of experiments is simply introduced as an illustration, being typical of many others (in both small and large amounts) that I have instituted, hoping to arrive at data by which to formulate an effective and economical process for making this important fluid extract. I believe, however, that it is sufficient to show that if the present Revision Committee proposes to establish assay methods for determining the emetine percentage of fluid extract of ipecac (and others alkaloidal), the sub-committee to whom these substances are awarded should introduce working processes that will enable both manufacturers and apothecaries to produce high-grade fluid extracts with the minimum of expense. The present U. S. P. process is, as I view it, neither practical nor possible from an assay standpoint. A high average of emetine cannot be obtained by it unless the expense involved by the continued percolation be so great as to forbid its competitive employment.

I must not forget to add that I have as yet considered only one step in the preparation of fluid extract of ipecac, and that, in my opinion, subsequent manipulations are as important as the selection of a menstruum, and deserve

as careful consideration as does the foregoing. Should the Committee of Revision of the U. S. P. not consider it judicious to standardize alkaloidal fluid extracts, the consideration of the subject from an assay standpoint, in order to formulate the best process, will not be out of place.

*I do not assert that it has been demonstrated that ipecac depends on emetine only for its value. Upon the contrary, I admit that other constituents may be necessary to give the full therapeutic force of the drug, but emetine is surely the most prominent emetic constituent.

†The drug was "fine ground" in a burr stone mill. In working small amounts the powder of the U. S. P. will give comparative or better effects. As quantities change, it is necessary to use some judgment in such directions, and on a large scale we must often deviate from the directions given in the U. S. P., which are designed for small amounts. The object of the Pharmacopœia process must be reached by manufacturers in the most direct and effectual manner, economy of time and of method being important factors.

‡I might perhaps more properly have estimated the total amount of emetine abstracted. However, for comparison, the same object is attained by the method employed.

§The value of the acid as an alkaloid preserver is not considered herein, only its value as an extractor of the drug. Whether it is of use or disadvantage in the subsequent steps is a point that cannot now be properly considered.

¶I recently assayed a specimen of fluid extract of ipecac made by the U. S. P. process which I feel assured was supposed by its maker to be a superior preparation. His sincerity is unquestionable. The result showed that the preparation contained less than 0.5 per cent emetine. This could not have occurred with him had the menstruum of the U. S. P. been adapted to the object of the assay.

The Advance in Cod-Liver Oil.

THE following passages from a recent editorial in the *Chemist and Druggist* represent the latest news about the commercial prospects of cod-liver oil:

From the commencement of the present cod-fishing season in Norway the reports of the progress of the fishing have been exceedingly unsatisfactory. Violent storms raging along the shores of the Lofoden have kept the fishermen land-bound for many days in succession, and when at last it became possible to venture upon the waters the fish proved scarce in numbers and poor in quality. That there is a very substantial foundation for the considerably enhanced prices which are now asked for new medicinal oil, is shown by the official statistics published by the Norwegian Fisheries Department. According to this authority, the number of fish caught from the commencement of the season up to March 1st was only 800,000, the average for the corresponding period of the six preceding seasons being 6,700,000. The number of boats engaged in the fishing this season (4,900) is somewhat less than that of recent years, probably owing, in part, to the unremunerative nature of the business, and the yield thus far of steam-refined oil has been 420 hectolitres (a 25-gallon barrel equals ¼ hectolitre), against an average of 2,700 hectolitres for the corresponding parts of the six seasons preceding. How large the proportion of medicinal oil will be this season it is not yet possible to say, but we understand that, according to telegraphic advices from Lofoden on March 7th, only 1,130 hectolitres of oil had been produced, as compared with 5,017 hectolitres last year. And if we include the deficiency in the smaller centres of supply at Westeraalen, Nordmöre, and Soudmöre, it is estimated that the total output of oil is already about 7,000 hectolitres, or 5,600 barrels, less than last year. Not for several years in succession has the outlook been so poor as it is to-day. Last year the fishing commenced badly, but towards the close of the season such an improvement set in that the loss was all but recovered. It is extremely doubtful whether such a favorable turn is in store for the fishers this season, as barely a fortnight now separates us from Easter, when the fleet abandons Lofoden and sails northward for Finmarken. The nearest approach to the present failure was during the disastrous spring of 1883, when medicinal oil advanced to £20, and at one moment reached the price of £25 per barrel, only slightly receding from those figures throughout the year. We are still very far from such panic prices to-day, and fine non-congealing oil may still be had in the wholesale market at £5 per barrel; but it must be borne in mind that the present value is not yet up to the average price, and the principal dealers confidently talk of £7 or £8 as a probable quotation in the near future.

Cantharidate of Potassium.

IN respect to the preparation of the hypodermic solution of cantharidin for the treatment of tuberculosis, Professor Liebreich points out that the sodium cantharidate, as well as the remainder of the salts prepared by Dragendorff and Masing, are not pure chemical substances, there being probably present varying quantities of uncombined cantharidin. They are not, therefore, suitable for the preparation of hypodermic solutions. In order to obtain a reliable solution, it is best to dissolve a weighed quantity of cantharidin in alkali by the prolonged action of heat, and then to carefully dilute with water to the desired strength. The amount of alkali theoretically required to convert the cantharidin into a salt of cantharidic acid is not, however, sufficient to dissolve the principle, and after a large number of experiments the professor concluded that in order to obtain a solution that would remain clear when diluted or cooled, it was necessary to employ twice the weight of caustic potassa or one and a half times the weight of caustic soda. The alkali must be pure, dry, and free from carbonate. The solutions are therefore prepared by heating in an accurately graduated liter flask on a water bath

Cantharidin..... ....0.2 Gm.
Potassium Hydrate.....0.4 Gm.

with about 20 C.c. of water until a clear solution is obtained; then gradually, while the solution is kept hot, water is added up to the liter mark, and finally, after cooling, the volume is made up exactly to a liter. Instead of potassa, sodium hydrate 0.3 Gm. may be used and the solution similarly effected. It is reported that Dr. Gerhardt, one of the physicians who attended the late Emperor Frederick, has tried Liebreich's treatment on twenty patients with unsatisfactory results.—*Chem. and Drugg.*

New Synthetic Remedies.

THE records of the German Patent Office appear to promise quite a crop of additions to the competitive materia medica, though the newcomers do not seem to have arrived yet at the dignity of bearing convenient registered names (*Pharm. Zeit.*, February 11th and 18th, pp. 97 and 115). Patent 55,026 relates to the preparation of benzoylamidophenylacetic acid by treating amidophenylacetic acid in alkaline solution with the calculated quantity of benzoyl chloride. It is said to crystallize in white needles that melt at 175.5° C., and to form very soluble salts with alkalies. It is claimed to exercise a valuable disinfecting action upon the intestinal canal, which is said to be shared by the phenyl ester of the acid.

Patent 55,007 is for a method of preparing alkylsulphonate salts (said to have a future in pharmacy) by the action of sulphites of alkalies, alkaline earths, or heavy metals upon the corresponding alkylsulphates. The reaction is represented by the equation:

$$\left.\begin{matrix}CH_3\\Na\end{matrix}\right\}SO_4 + Na_2SO_3 = \left.\begin{matrix}CH_3\\Na\end{matrix}\right\}SO_3 + Na_2SO_4$$

alkylsulphate of sodium — sodium sulphite — sodium alkylsulphonate — sodium sulphate

Patent 55,009 has to do with the preparation of dichinoline derivatives. Meta-amidophenyl-paramethoxychinoline is treated in the cold with glacial acetic acid, and then by subsequent heating converted into a mixture of two isomeric methoxy-oxymethyldichinolines, which are separated by conversion into their sulphuric acid salts. The compound least soluble in hot sulphuric acid, named "β basis," yields upon reduction a tetrahydro product that is alleged to possess the same properties as quinine in respect to malarial fever, without any injurious by-effects. Lastly, patent 55,119 covers three different methods of preparing ortho-nitro-meta-methoxy-phenyllactic acid, as well as a method of preparing from this compound by reduction para-methoxy-dioxydehydrochinoline, which is also alleged to possess highly valuable properties as an antipyretic in malaria.—*Pharm. Journ.*

Bromoform.

SINCE this agent is coming more into use, chiefly as a remedy in the treatment of whooping cough, the following portions of a paper relating to its preparation and properties, by Mr. George M. Beringer, printed in the *Amer. Jour. Phar.*, will be of general interest. After reviewing some of the published processes, the author decided to adopt Dumas' process, with some modifications.

Four ounces of marble lime are slaked and then mixed with 1 quart of water, and the milk of lime thus made transferred to a flask connected with an inverted condenser. A funnel tube is passed through the cork and reaches below the surface of the liquid. In order to obtain mechanical agitation, so as to keep the lime dispersed through the liquid, a small glass tube is run to near the bottom of the flask, and, extending through the cork, is attached to a rubber atomizer bulb. By pressing this bulb sufficient air is forced into the mixture to keep it thoroughly agitated, thus supplying the place of the mechanical agitator of the manufacturer. Four ounces of acetone are added in portions, one-half being added at once and the remainder gradually during the operation. The contents of the flask are maintained at a temperature of 45° to 50° C., slightly below that of the boiling point of acetone, and bromine is gradually added in small quantities through the funnel tube, the mixture being thoroughly agitated as each portion is added. When the reaction is completed and the further addition of bromine yields a yellow color, a sufficient quantity of milk of lime is added to render the solution *decidedly alkaline*, and distillation begun at once. The bromoform, although boiling at a much higher temperature than water, comes over in the first portion of the distillate. The aqueous portion of the distillate usually contains considerable acetone, and may be returned to the flask and used in a subsequent operation.

The bromoform obtained is repeatedly washed with water, separated, and treated with calcium chloride and then distilled. I was surprised, on attempting to fractionate the liquid, to find that a portion of the distillate was obtained below 100° C., a fraction being collected between 90° and 100° C. On agitating 5 C.c. of this fraction with 20 C.c. of water in a stoppered graduated cylinder, but 1 C.c. separated, the remainder being dissolved. The aqueous portion separated possessed the odor of acetone, and yielded iodoform, with iodine and potassium iodide in an alkaline solution. The heavy, oily liquid possessed the odor and taste of bromoform, but the small amount remaining precluded any further investigation. The fractions obtained between 100° and 140° C., being small in quantity, were mixed and 5 C.c. agitated with 20 C.c. of water, but 2 C.c. remained undissolved. The aqueous portion likewise gave the iodoform reaction.

The presence of acetone in the bromoform after repeated washing with water is worthy of notice, and shows the necessity of fractionally redistilling the product. Richter ("Organic Chemistry," p. 161) states that "acetone, in the presence of caustic soda, combines with coloroform, yielding acetone-chloroform:

$$(CH_3)_2C \begin{cases} OH \\ CCl_3 \end{cases}$$

"It seems not unlikely that under similar conditions a corresponding compound may be formed with bromoform.

"The fraction distilling at 143° to 148° C. showed a spec. grav. of 2.8645, and that collected at 148° to 151° C. had a spec. grav. of 2.9082. These fractions were exposed on a recent cold morning and at 9°–10° began to cloud. When the thermometer marked 8° crystals began to appear, and at 6° C. a mass of crystals had formed in each. These were quickly transferred to a funnel, a small layer of absorbent cotton having been placed in the angle of the funnel and the liquid portion allowed to drain. The funnel was now brought in-doors and the crystals allowed to melt. The first portion that escaped from the funnel was collected separately, and the remainder was collected in a perfectly dry, clean vial, and is believed to be chemically pure bromoform. It showed the following characters: Specific gravity, 2.900 at 15° C.; boiled steadily at 147° to 148° C., and became crystalline at 6° to 8°, and a firm, solid mass at +4.5° C. These temperatures were obtained with a thermometer corrected at Yale. . . ."

Care must be taken to add the bromine in small portions and to have the contents of the flask decidedly alkaline, or there will be formed more or less *mono-bromacetone*, a serious contamination of the product. This compound is a very powerful irritant. A few drops escaping in the room so irritate the eyes and nostrils as to render the atmosphere unendurable. As its boiling point, 140° to 145° C., approaches nearly that of bromoform, it cannot be separated by fractionating alone. In experimenting with the process of Gunther, above mentioned, the writer was unfortunate enough to obtain some mono-bromacetone, greatly to the discomfort of himself and other occupants of the room. The contaminated product was treated with solution of sodium carbonate, which removed but slightly the troublesome compound. It was then agitated with lead oxide, water was added, the whole thoroughly shaken and thrown in the flask and redistilled, the resulting distillate washed and then fractionated, yielding an unobjectionable product.

Bromoform suitable for medicinal purposes should answer the following requirements: A colorless, volatile liquid having a characteristic odor and penetrating sweet taste, specific gravity 2.86 to 2.90, and should vaporize without leaving any residue at 147° to 150° C. A few drops evaporated from a watch crystal or filter paper and the vapor inhaled, should not irritate the eyes or nostrils. Agitated with sulphuric acid, no color should be imparted to either liquid. Treated with Liquor potassæ, no coloration should be produced. On agitating with distilled water, the water separated should not show an acid reaction to test paper nor yield a precipitate with silver nitrate, nor, on adding it to a weak ammoniacal solution of silver nitrate and allowing to stand, should a metallic mirror be formed.

The Opium Traffic in India.

MR. S. SMITH, by means of a question in the British House of Commons on March 9th, has elicited the statement that there are 10,000 opium shops licensed by the Government in India, and the consumption of opium in Lucknow has increased from 36,240 tolas in 1883–84 to 64,320 tolas in 1887–88. Throughout India generally the consumption is slowly increasing. Mr. Smith suggested, seeing that in Great Britain it is unlawful to sell opium, except by a duly qualified and registered druggist under stringent regulations, and labelled "Poison," that her Majesty's Government would take into consideration the expediency of adopting similar provisions with regard to its sale in India; but the Government has refused to consider the proposition.—*Chem. and Drugg.*

Aluminium at $1.25 per pound is in the market. A price list sent out to the trade by the Cowles Electric Smelting and Aluminium Company, of Lockport, N. Y., gives the following figures: In lots of more than 2,000 pounds, $1.25 per pound, less 20 per cent discount; and in 1,500 pound, 1,000 pound, and 500 pound lots, $1.25 per pound, with 15, 10, and 5 per cent discount. In 50 to 500 pounds the price is $1.25 net; 10 to 50 pounds, $1.50; and less than 10 pounds, $1.75 per pound.

Assay of Theobromine in Diuretin.—Diuretin is a compound of sodium salicylate with theobromine, containing (theoretically) 49.7 per cent of the latter. Some time ago Vulpius published a method for determining the percentage of theobromine, but, owing to the solubility of the latter in water, it would be necessary to apply a correction to the result obtained, by adding 8.46 per cent. At least this is the statement made by Eckenroth (in *Pharm. Zeit.*). The latter proposes to precipitate the theobromine by passing a current of carbonic acid gas through the solution. This may be employed in excess, without precipitating any salicylic acid. But even with this modification the whole of the theobromine is not obtained, the result being only about 3 per cent higher than that from the first-mentioned process.

Cradina, a New Digestive Ferment.

TEN years ago M. Bouchut found a powerful ferment in the juice of the common fig tree (*Ficus Carica*), and this is now the subject of a paper (in *L'Orosi*, 1890, p. 364) by Dr. Mussi, who gives a description of the isolation of the substance, and names it cradina, from *krade*, the name given by Greeks to the part of the fig associated with digestive power. It is insoluble in water, but dissolves readily upon the addition of a trace of acid or alkali, and the solution placed in contact with moist fibrin effects complete and true digestion.

It contains nitrogen, and in the dry state it forms a friable, semi-transparent, dark yellow, amorphous mass, yielding an amber-yellow powder.

In water it swells, but does not dissolve, though upon being shaken it imparts to the liquid a milky appearance.

When dissolved by the aid of alkali or acid, a concentrated solution is dark yellow, but becomes colorless upon being diluted.

Cradina differs from pepsin in maintaining its digestive power in an alkaline liquor, and from papayin or papayatin in being insoluble in water, not precipitated from solution by alcohol or lead acetate, and in its activity not being diminished in the presence of hydrochloric acid. In a neutral liquid it is devoid of digestive power, and it has no action upon starch.

Kudzu Starch.

Pueraria Thunbergiana Bth., a leguminous plant from Japan, which has a large starchy and fibrous root, and which is described as a beautiful trailing shrub, has recently been introduced into cultivation in France (*Gard. Chron.*, February 14th, page 211). As the plant produces abundance of root and the stem yields a strong fibre, it is likely that the cultivation of the plant will spread in Europe. Starch from the root was exhibited at South Kensington and appeared of excellent quality, being free from smell or unpleasant taste and yielding a large percentage of starch jelly. The starch under the microscope appears muller-shaped, but many of the grains are angular at one end and round at the other, are destitute of the marked hilum frequently found in the starch of leguminous plants, and bear more resemblance to those of colchicum.—*Chem. Journ.*

Medical Legislation in North Carolina.

[AN occasional correspondent in North Carolina has favored us with the following copy of a bill which was introduced during the last session of the Legislature by a member from the western part of the State. The proposer is said to have been in "dead earnest," and there is little occasion for doubting it in view of its final clauses. Its author does not seem to have had much more confidence in courts and judges than he had in doctors; and it looks very much as if his experience with the medical men of his neighborhood had not been of a kind to develop a feeling of cordiality and mutual good will. It will not be surprising if he should try his hand on a pharmacy bill at the next session, in which case we hope to have an advance copy for the benefit of our State Pharmaceutical Associations who have trouble with their efforts to prepare an act acceptable to their legislators.]

AN ACT TO REGULATE THE CHARGES OF DOCTORS, ETC.

1st. It shall be unlawful for any doctor or doctors to charge over 30 cents per m., medicine included.

2d. It shall be unlawful for any doctor or doctors to drive from his office into the country to see a patient, and then go to see another patient, and charge each mileage from his office. Said doctor or doctors shall only be allowed to charge mileage from one patient to another.

3d. It shall be unlawful where a doctor or doctors does the practice of a family to charge for prescription.

4th. It shall be unlawful for any doctor or doctors to charge over $5 for any labor case, except when he has to take the child from the woman by pieces; then he shall only be allowed to charge $7.50.

5th. It shall be unlawful for any doctor or doctors to charge over $2 for examining any man or woman to find out the disorders about them at his office the first time, and only to charge $1 for examining thereafter, and when said doctor or doctors drives to see a patient he shall only be allowed to charge mileage.

6th. It shall be unlawful for any doctor or doctors to charge more than $10 for sewing up any woman's urethra, after having been torn while she was in labor.

7th. It shall be unlawful for any doctor or doctors to charge more than half fees where he practises on a patient and the patient dies.

8th. It shall be unlawful for any doctor or doctors to charge more than mileage to do lancing of any kind.

9th. It shall be unlawful for any doctor or doctors to charge over $10 for amputating an arm, or $20 for amputating a leg.

10th. It shall be unlawful for any doctor or doctors to charge over $25 for cutting any person open and taking abscesses out of them, and to cut any person open to examine their intestines to charge $15 only to cut out a tumor or abscess.

11th. It shall be unlawful for any doctor or doctors to charge more than mileage to dress a wound, and not to charge more than $5 to sew up an extreme cut except the abdomen wall, and then to charge $10 only.

12th. It shall be unlawful for any doctor or doctors when called in consultation to charge more than mileage.

13th. Whosoever sets himself up as a doctor or practises medicine as a physician or expert shall serve the public under all circumstances except when engaged or sick.

14th. Any doctor or doctors who violates the foregoing articles in any shape, or contracts for or receives for his services more than the foregoing article has set forth, shall be guilty of a misdemeanor, and upon conviction shall be fined $200 for each and every offence.

15th. Any doctor or doctors who violates the foregoing articles shall be tried as follows: Their case shall be reported to the Grand Jury, and said Grand Jury shall have the exclusive right to issue instanter capiases for witnesses; and if said Grand Jury finds a bill, it shall be the duty of the foreman of the Grand Jury to have said bill recorded in the clerk's office on the criminal docket the same day the bill is found, with his name signed at the bottom as foreman of the Grand Jury in his own handwriting, and said case shall be tried after this is done as all other State cases.

16th. Any solicitor who fails to prosecute said bill within six months after it is so recorded shall be guilty of high misdemeanor and shall be fined $1,000.

17th. Any solicitor who violates the sixteenth paragraph shall be tried as follows: It shall be the duty of the Grand Jury to look after their cases, and at the expiration of six months, if not prosecuted, the foreman of the present Grand Jury shall have the clerk of the court to read the bill so filed on his criminal docket by the foreman of the Grand Jury to the judge, and the judge shall impose a fine of $1,000, or five years in the penitentiary at hard labor, upon said solicitor. Said fine shall go to the said school fund in which county the offence was committed.

18th. It shall be the duty of the clerk of the court to see that the Grand Jury is provided with the above paragraph at every term of the court.

19th. Whenever any person is tried for disregarding any of the foregoing paragraphs, it shall be the duty of the clerk of the court to write down the judge's charge to the Travis Jury, and the foreman of the Travis Jury shall hear the judge's charge, and if the judge did not charge the jury right according to the above paragraph, it shall be the duty of the clerk to hand to the foreman of the Grand Jury present the judge's charge, and he shall report the same to the other members of the Grand Jury, and if they find the judge did not fully instruct the Travis Jury right, it shall be their duty to make out a true bill against the said judge, and they shall present it to the clerk of the court, and he shall have exclusive right to fine said judge $1,000, or five years in State penitentiary at hard labor; the above fine shall go to the school fund in the county in which the offence is committed.

20th. Whenever there is a case prosecuted and the prosecutor loses the case the State shall pay the costs, and where the prosecutor gains the case he shall have half the fines, the other half to go to the county school fund in which the offence was committed.

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EDITORIAL.

IN the report of the Dairy Commissioner of the State of New Jersey for the year 1890, just issued, the commissioner, Mr. George W. McGuire, and the chemist, Mr. Shippen Wallace, bestow some space upon the well-known Nux Vomica case. While we do not care to rehearse the whole subject, we yet desire to offer a few remarks or comments on some passages in the report. On page 18 we find the following:

"The claim made by the proprietors of the article ['normal liquid'] in question, that a superior tincture can be had by adopting their formula, inasmuch as it contained the full alkaloidal strength of the drug, free from what they term its inert substances, led me to submit a few questions to a number of prominent physicians, chemists, and pharmacists, as to the therapeutic value of the non-alkaloidal portions of nux vomica, and whether or not a tincture containing 0.25 per cent of alkaloids and 0.4 per cent non-alkaloids would meet the *intent and spirit* [italics are our own] of the United States Pharmacopœia. The answers received were divided as to opinion, some indorsing the manufacturer's view, more opposing it on the ground that as no certain determination of the therapeutical value of the non-alkaloidal portions of the drug had yet been made, it was unwise as well as unlawful to deviate from the pharmacopœial formula, and that a tincture, such as referred to, clearly does not meet the intent and spirit of the Pharmacopœia. Be this as it may, it seems clear that the formulators of the prescribed method laid down in the United States Pharmacopœia for the preparation of tincture nux vomica must have recognized the therapeutic value of the extractive matter in the drug, and that it has a defined physiological action I believe most physicians will agree. Otherwise, tincture of nux vomica may as well be taken out of the medical books, and when the action of the drug is desired the physician can prescribe strychnia, which the druggist will find much more convenient to dispense."

We have reason to know that the commissioner was fully informed as to the reasons why the former Committee of Revision adopted the process and adjusted the strength of the tincture to 2 per cent of dry extract. It was *not* because they believed the extractive matter to possess any therapeutic activity, but simply because they had, in 1881, no better method, suitable for pharmacopœical use, to fix the strength of the preparation. Were the votes of the revisers of the Pharmacopœia of 1880 polled, it would most probably be found that four-fifths of them, at least, regarded the extractive, in this particular tincture, as inert.

They would *not* have been justified in substituting for this preparation an alcoholic or hydro-alcoholic solution of the alkaloids of nux vomica, since the profession of medicine had always been in the habit of prescribing the *tincture*, and the above-mentioned solution cannot be termed a tincture. We have no doubt such a solution will eventually become a substitute for the "tincture," but this cannot be done in advance of any distinct demand for it on the part of physicians.

Moreover, the opinions of physicians or other persons regarding the physiological activity or inertness of the "extractive" of nux vomica can have no real value unless it is based on proof. A positive proof was offered and presented to the court during the trial by two recognized authorities in materia medica and pharmacodynamics, who exhibited a pulse-tracing of an animal to which large quantities of this extractive had been administered. Not the slightest alteration could be detected in the pulse-tracings previous to and after the administrations.

The report continues:

"The principle of having a definite strength for the most important drugs is undoubtedly a good one, and the publicity given to the above cases will in all probability result in good, since the United States Pharmacopœia is now in course of revision, and the attention of those engaged in this work has been called to the fact that many of the most deadly poisons have no definite strength laid down."

And later the following passage occurs in the analyst's report (page 29):

"The mode of preparing it, as laid down in the United States Pharmacopœia, and the strength there given, give '2 per cent' dry residue. While the preparation is classed among the poisons, no strength for alkaloids is laid down, as is the case in the 'British Pharmacopœia.' In fact, the United States Pharmacopœia is sadly deficient [*sic*] in its requirements for the strength of a number of preparations. Certain manufacturing druggists have consequently, during the past few years, made what they term 'normal,' 'standard,' etc., preparations, by the use of which they claim uniform results may be had. The mistake is to claim that a United States Pharmacopœia preparation can be made [in this manner]. This was the case with the sample containing 0.618 per cent dry residue. It had been made from one of these preparations, and it was claimed to contain an alkaloidal strength of 0.25 per cent, and that it therefore complied with the *intent* of the United States Pharmacopœia. While it may be true that a preparation containing 2 per cent of residue will possess 0.22 per cent of alkaloids, it will also have non-alkaloids to the amount of 1.75 per cent, and whether these possess any therapeutical value is a question which 'doctors disagree' upon. . . . There is no difficulty in obtaining from the retailers a preparation which fulfils the *letter* of the United States Pharmacopœia standard, and, from the result of my examination, I do not doubt, also, the required alkaloidal strength."

It will be seen that great stress is laid upon the *letter* of the pharmacopœial text, and scarcely any upon the *intent*. While we acknowledge that, strictly speaking, both the letter and the intent of a law must be complied with, there are yet cases where only one of these is exactly known or understood, not to mention others where compliance with one involves disobedience to the other. The United States Pharmacopœia of 1880, or rather 1882, gave no alkaloidal strength or limitations in the case of nux vomica. And it need not be so slightingly spoken of

in comparison with the British Pharmacopœia which appeared three years later (in 1885), and which had the advantage of utilizing all the literature which appeared in the interval, a very large portion of which was elicited by the appearance of the United States Pharmacopœia. Now, it cannot be doubted that the *intention* of the revisers was to obtain a tincture of nux vomica which would contain the amount of alkaloids naturally existing in the quantity of nux vomica used for any particular batch of the tincture. Truly, the text says nothing about the alkaloids. Consequently, to use the New Jersey analyst's own logic, the latter had really no call to inquire into the alkaloidal strength at all, for, as the Pharmacopœia does not require "Nux Vomica" by express statement to contain any alkaloids at all, no such requirement can be made of the tincture either. In fact, had the tincture been prepared from nux vomica *deprived entirely of alkaloids* (such as can be bought by the ton from manufacturers of strychnine), and had the analyst found it to contain 2 per cent of dry extract, the *letter* of the Pharmacopœia would have been complied with and the State would have had no case, although the tincture would have been absolutely inert. On the other hand, here we have a number of conscientious pharmacists who recognize the difficulty of making a good tincture of nux vomica containing what the physician has a right to expect in the matter of active constituents. Instead of making it in a haphazard or slipshod manner, as is no doubt often done, these pharmacists make it of a standard strength, so far as the active principles are concerned, and thereby infringe the *letter* of the law, most probably without knowing it. For, had they known the result, they could have added any kind of an extractive, whether from nux vomica or other sources, to bring the total up to 2 per cent. And who would have been benefited by this? Surely not the invalid who used the preparation.

We do not advocate any departure from official standards when there is no necessity. But there are cases when the true object originally aimed at can be reached by better ways than those laid down in the official text. In such cases a departure is permissible, all that is intended being to obtain preparations of the desired *medicinal* value and proportionate strength in *active* constituents.

The judge's decision says that "the process prescribed in that work [United States Pharmacopœia] was the standard of strength, quality, and purity of the article prepared. . . . The alkaloidal test since discovered may be a perfect register of strength, but it is clear that it is not a standard recognized."

The judge lays down a principle which we are afraid has not been regarded as such by others, but it is well to bear it in mind, since it may be quoted as an authoritative statement in a future case. The judge says that the *process* is the standard. Now, supposing the text of the Pharmacopœia gives not only a process, but also a description, with tests of strength. And further supposing that the process, if faithfully followed, should yield a preparation containing, say, 2 per cent of a certain definite chemical substance, while the test of strength should by mistake require it to contain 4 per cent. Here we have a decision settling the matter for New Jersey. The process is the criterion to go by; not the words of the text.

There are many more passages in the judge's decision which would form interesting schemes for discussion; but they would lead us too far at the present time. Only this we would say by way of conclusion: Evidently, to judge by the position taken by the prosecuting parties, any one selling tincture of nux vomica hereafter (until the next United States Pharmacopœia goes into effect), in the State of New Jersey, need only see that it contains 2 per cent of dry extract. Of course we hope that all will be conscientious enough to look to the alkaloids also. But the absence of alkaloids does not seem to be liable to become a cause for action, since the *letter* of the law says nothing about them.

An alcoholic solution of nitroglycerin, of the strength of 1 per cent, has been long used in medicine, and was made semi-official in the National Formulary published by the Amer. Pharm. Association a few years ago. It has also been made official in Great Britain by being incorporated into the "Addendum" to the British Pharmacopœia recently published. In this country no difficulty is experienced in obtaining it. Wholesale drug houses usually procure it from factories of nitroglycerin by having it mixed at the factory with nine times its weight of alcohol, forming a 10-per-cent solution. This is not always correctly done, however. We have known several instances when the mixture was made at the factory by *measure*, which, of course, produces a very much more concentrated preparation. The National Formulary also gives an approximate method of verifying the strength of both the 10-per-cent and the 1-per-cent solution.

Our English confrères seem to be somewhat in doubt where they are to obtain the nitroglycerin with which to make the solution. The sale and disposal of nitroglycerin in England are now hedged around by so many laws that it is not easy to procure it. Mr. Rutherford Hill recently remarked, at an evening meeting of the Pharmaceutical Society, that some twelve years ago he had occasion to supply some of the solution to a physician. On writing to the manufacturers, they replied that they could not supply nitroglycerin without an order of the Board of Trade, and not even then in smaller quantities than a wagon load at a time. But he received a hint which carried him over the difficulty. He obtained several dynamite cartridges from a contractor, and suspended them in distilled water (as advised by Messrs. Nobel), whereupon the nitroglycerin slowly separated from the kieselguhr, and was then collected and dissolved in alcohol.

NEWS AND NOTES.

American Pharmaceutical Association.

TRANSPORTATION.

The Committee on Transportation announce the following arrangements for the conveyance of the persons attending the meeting, and for their return to their homes; and in this connection the statement is offered that no effort has been spared to obtain the very best terms available. The rates secured are substantially as follows: From eastern points, viz., the New England States, and States of New York, New Jersey, Pennsylvania, Maryland, Delaware, and District of Columbia, the tourists' rate has been settled on; this means one full fare going and one-third fare returning. A similar rate has been fixed for the Southern States coming under the control of the Southern Passenger Commission, which includes most of the roads east of the Mississippi River. Special rates have been provided for the cities of Chicago, St. Louis, and Cincinnati, for which the excursion rate of a single fare for the round trip has been guaranteed.

The purchaser, on procuring his ticket at tourists' rates, will demand and receive a Convention certificate, which will be filled out by the ticket agent. This certificate, when indorsed at New Orleans by the member to whom the duty shall be assigned, will enable its holder to return over same route within five days from the last day of meeting by paying one-third of a single fare. Sleeping-car accommodations will be furnished by all the roads at usual rates, except when special rates can be secured.

Further particulars regarding fare, and day and hour of departure for meeting, etc., will be promptly obtained by communicating with the member of the Transportation Committee whose address is most convenient to applicant.

ACCOMMODATION.

Upon reaching New Orleans the visitors will be provided with quarters at the St. Charles Hotel, at the rate of $3 per day. The hotel is centrally located, and within five minutes' walk of Washington Artillery Hall, where the meeting will be held. This hall is the largest building of the kind in the city, and will afford ample accommodation for meeting and exhibition. Its proprietors will surrender the entire building to the use of the Association during the week beginning 25th of April, thereby affording exhibitors ample time to prepare their displays. Already a large proportion of the space has been secured, a result greatly due to the efficient labors of Mr. C. K. Hall, the member in charge of exhibitions. The headquarters of the Association will be at the St. Charles Hotel, the proprietor having offered every facility for the transaction of business, including a large parlor for use of nominating committee, and suitable rooms for other work.

ENTERTAINMENT.

The programme for the entertainment of the members will be arranged as follows :

MONDAY EVENING—A reception, with music, dancing, and refreshments.

TUESDAY EVENING—A musical entertainment at Grunewald Hall.

WEDNESDAY—Carriage drives.

THURSDAY, 9 A.M.—A steamboat trip on the Mississippi River, including a visit to Chalmette Cemetery and a stop at a large sugar plantation. This trip will occupy about four hours, and will afford an excellent view of the city front and its environs.

FRIDAY EVENING—Banquet.

New Orleans at the beginning of May shows nature in her brightest guise. The air is balmy and pleasant, and the temperature seldom rises above 80° Fah. The south wind prevails, freighted with the cool moisture of the adjacent Gulf, tempering the sun's warmth and making the night air delightful. The resident portion of the city presents many attractions. The rich alluvial soil yields its treasures in profusion; the verdure is luxuriant; the grounds are ablaze with flowers; the magnolia is then in bloom, and the jasmine and the rose unite their fragrance. The song of the mockingbird relieves the silence of the midnight hours. The city possesses many features to interest visitors. The French Quarter, with its old-fashioned styles of architecture, will recall many a scene made familiar to the reader in song and story. The strange sights incidental to the French Market, and the varied origin and nationalities of its venders, will well repay a visit. Half an hour's ride will bring the visitor to the margin of Lake Pontchartrain, a beautiful sheet of water of sufficient extent to sink its opposite shore from view. Metairie Cemetery will prove an interesting spot, with its beautiful grounds and its numerous monuments, and where the method of sepulture peculiar to this locality is employed. The city is well lighted with electric lights, supplied by what is considered the finest and most extensive plant in the country, and its manager kindly offers to this Association the privilege of inspecting the place. The river front will amply repay a visit, with its miles of continuous wharves, where great fleets of vessels are moored, discharging their cargoes or loading with the great export staples of the country. Audubon Park should be visited. Its magnificent groves of live oaks, its Horticultural Hall, and the Experimental Station for sugar culture and manufacture, will be well worth seeing. It is easy of access, being situated about three miles from the hotel, at the end of a splendid drive through the avenue, bounded on each side by numerous beautiful residences. There are many features of interest about New Orleans too numerous to mention in this circular, but which can be seen and enjoyed by the visitors. And last, but not least, comes the hearty welcome which will be extended to their friends by a people whose reputation for hospitality has been established since the foundation of their city.

Committee on Arrangement and Entertainment: Alex. K. Finlay, Chairman, New Orleans; P. W. Bedford, New York; C. K. Hall, New Orleans; Eug. Lalmant, New Orleans; L. F. Chalin, New Orleans.

Committee on Transportation: M. W. Alexander, Chairman, St. Louis; Thos. F. Main, New York; L. C. Hogan, Chicago; W. J. M. Gordon, Cincinnati; A. K. Finlay, New Orleans.

NEW ORLEANS, March 21st, 1891.

CHICAGO.

PEOPLE in this snow-bound, "grip"-clutched climate are beginning to suspect that spring is to be eliminated from the calendar this year. The first "spring" month in the *almanac* was the first real winter month in point of *weather*, and the second is like unto it—yea verily, and more so. April has come in with the biggest kind of April "fool" for those who had hoped that with the exit of the March "lion," April would make her advent with a suggestion of spring lamb and green peas. The sharp wind that blows upon us from the ice fields of the Northwest is full of snow and pneumonia. March laid its deadly "grip" upon the people of this Western metropolis, and the closing week of that month surpassed all previous records of deaths from zymotic diseases in the same length of time. But four or five days of even *partial* sunshine in the month of March, and only one thus far in April, have dissipated the clouds and mist, and given even a temporary check to the ravages of the spores or bacilli that are supposed to produce the form of influenza known as the "grip." You may have noted, by the way, that a Chicago physician claims to have captured a genuine bacillus or microbe in the air, from which he and others are made confident that the bacillary theory is the correct one to account for the prevailing disorder. Whether there be anything in this of the nature of a scientific discovery, or whether, as some have facetiously suggested, that was only a wandering bacillus, and perhaps an emissary of the "Mafia," remains for future investigation to disclose. One thing, however, is sure—"spring, gentle spring," with its "ethereal mildness" and all that, *non ist inventus.*

Chicago, however, has not had a monopoly of this unseasonable weather. Very much the same climatic conditions have prevailed all over the Northern and Western States. As your correspondent came West over the New York Central Road, he noticed vast fields of ice in the Mohawk Valley, and along the immediate vicinity of the river itself great cakes of ice had been piled up by the sudden flood, which lifted the huge blocks from their resting places and carried them onward until some insuperable obstruction would pile "Ossa upon Pelion." That Mohawk Valley, by the way, is flooded every spring, and it is almost a wonder that anybody who can get away will live there.

Next to the weather, which has of necessity been a daily subject of comment, the druggists encountered by your correspondent through the West have been much interested in the discussions going on in the papers, and in special meetings of representative pharmacists, relative to the proposed plans for abating the evil of price cutting.

The mention of this subject may have somewhat the flavor of the "chestnut," and people can consume chestnuts *ad nauseam.* But the *ad-nauseam* stage is bound to come sooner or later. This statement is made in view of the fact that already some of those druggists who were loudest in their advocacy of certain plans for the abolition of the evil a few months ago are getting tired of the subject, and those drug journals that

have devoted so much space to the suggestion and elaboration of plans are finding out that fully one-half of the druggists interviewed are sceptical as to the practical workings of any "coupon" or "rebate" arrangement on patent medicines, so long as the manufacturer himself lowers the price (and the profit) and persists in selling to the department stores, where the scalping business can be carried on without any limit.

Several pharmacists with whom your correspondent has conversed are of opinion that the ground taken by the AMERICAN DRUGGIST in its editorial of March 1st is the only correct and tenable one, and the feeling is growing in force that after all *there is no obligation* on the part of retail druggists to sustain the Hood Sarsaparilla Company, or, for that matter, any other manufacturer of patent medicines. This sentiment does not, of course, have reference to those manufacturers of such articles as are admitted, or that might with reasonable propriety be admitted, to a place in the Pharmacopœia, and that depend for their successful introduction upon the work and favor of the physician. This exception needs scarcely to be made here, as it is quite generally recognized, and the drug journal that is published on principles of equity accords to worthy manufacturers the same support it gives to all scientific workers.

The prevailing sentiment out through the West is that, so long as manufacturers of "patent medicines," "non-secret preparations," druggists' sundries, etc., treat the drug trade with due consideration by upholding the prices, and in other ways recognizing druggists as the proper dispensers of their goods, just so long will there be a community of interests, and *no kicking*.

At a large and enthusiastic meeting of the Chicago Retail Druggists' Association, held on Thursday, March 19th, to consider the different plans for our mutual protection, after a full discussion of resolutions offered by Mr. Wm. Bodeman, it was unanimously adopted to be the sense of the meeting to reinforce the position previously taken against the C. I. Hood & Co.'s plan, and also that the Association feels in duty bound to stand by the Tripartite Conference plan promising schedule prices, as well as to keep goods out of department stores and from all other cutters.

CANADA.

Fog, mist, drizzle, and occasionally a spasmodic attempt at a shower, the streets resembling peasoup, and crossings almost impassable, excepting where a sweeper with broom in hand retaliates for your intrusion on his domains by generously bespattering you with mud; to this add a woman or two with market baskets and a few mackintoshed men, and you have a characteristic picture of the streets in our Canadian towns. The bottom has completely dropped out of business, and even those merchants who have an A1 rating in Broad street are daily expecting some of their less fortunate brethren to go under, and by a "slaughter sale of bankrupt goods" make competition all the keener. Verily, now is the winter of our discontent. And I have a good digestion, and my liver is all right, too. Reports from Chicago and elsewhere rather encouraged us for a while, and we laid in a stock of antipyrin and other grippe remedies; but, with the exception of an isolated case or two of bad cold in the head, there is little demand for our wares. Last year everybody bought grippe medicine, even those who were well supplied themselves with prophylactics. But this year you can't talk a man into taking even an almanac with a place for memoranda and cuts of grateful patrons on each page. But signs of coming spring are becoming more and more marked, and each day the frugal druggist is busy renovating last year's stock of garden seeds and relabelling "Our Own" Liver Degenerator. The paste-pot virtuoso is out at early dawn decorating the closeboard fences and unoccupied brick walls with eulogies on Bogg's Monumental Nerve Restorer. Attractive notices in the daily papers tell how the handsomest man as well as the ugliest woman use Big "D"; and soda-water men are beginning to call our attention to the "Tallest and Prettiest," etc.

Confidence must rest in the bosoms of the brethren in the craft. Looking around the country, I see many a new store being fitted up for the spring trade, and the older ones having the patent-medicine hangers replaced with plate glass and gilt wall paper.

RECENT PATENTS, TRADE MARKS, AND LABELS.

ISSUE OF FEBRUARY 24TH, 1891.

Patents.

446,892.—Alizarine derivative, R. E. Schmidt, Elberfeld, Germany.

446,893.—Alizarine derivative, R. E. Schmidt, Elberfeld, Germany.

447,189.—Red dye, P. Julius, Ludwigshafen-on-the-Rhine, Germany.

446,875.—Compound of iodine with thymol, J. Messinger and G. Vortmann, New York, N. Y.

447,128.—Bifocal spectacles, G. H. Cline, Jersey Shore, Pa.

Trade Marks.

19,064.—Ammonia preparations for medical purposes, Chemische Fabrik auf Aktien (vorm. E. Schering), Berlin, Germany. Application filed October 10th, 1890. Used since September 12th, 1890. "The word 'Spermin.'"

19,077.—Certain named remedies, Catharine A. Purtle, Erie, Pa. Application filed October 25th, 1890. Used since May, 1890. "The word 'Jannock.'"

19,087.—Face powders and prepared chalk, Andrew S. Stiegerwald, Philadelphia, Pa. Application filed May 29th, 1890. Used since March 1st, 1890. "The words 'Actresses' Favorite.'"

19,092.—Pale Orange Bitters, John Henry Membrey, London, England. Application filed January 13th, 1891. Used since 1859. "The representation of a red lion with the name 'Pale Orange Bitters' and the fac-simile signature in red of 'Field, Son & Co.'"

19,094.—Perfumery, soaps, washes, and lotions, William S. Thomson, London, England. Application filed January 27th, 1891. Used since May 3d, 1890. "The word 'Karilpa.'"

19,097.—Liniments for the cure of rheumatism, neuralgia, gout, and similar ailments, John H. Blume & Co., Walhalla, Texas. Application filed October 28th, 1890. Used since August, 1890. "The word 'Cherokee.'"

19,101.—Suppositories for female diseases, Victor Medical Association, South Bend, Ind. Application filed December 9th, 1890. Used since January 15th, 1887. "The words 'Wild Olive and Myrtle Tonic' and the representation of a lion's head."

ISSUE OF MARCH 3D, 1891.

Patents.

447,695.—Anti-snoring bandage, A. Mosterts, Strassburg, Germany.

447,514.—Gelatin capsule, S. E. Heineman, Detroit, Mich.

447,302, Orange dye, and 447,303, Violet dye, C. Duisberg, Elberfeld, Germany.

447,605.—Vessel holder for druggists' use, J. C. D. Gurtiss, Rochester, N. Y.

447,574.—Syringe-tube sinker, D. B. Martin, New Haven, Conn.

447,410.—Vaginal syringe, L. D. McIntosh, Ravenswood, Ill.

447,378.—Truss, H. C. Stickney, St. Louis, Mo.

Trade Marks.

19,110.—Line of proprietary medicines, Roswell Van Buskirk, Newark, N. J. Application filed January 2d, 1891. Used since 1880. "The word 'Paustic.'"

19,112.—Remedy for coughs, colds, and like diseases, Ellsworth S. Beshore, Pottstown, Pa. Application filed January 28th, 1891. Used since November 1st, 1890. "The words 'One Night Cough Cure.'"

19,114.—Ointment, Thomas F. Christman, Greenville, N. C. Application filed January 23d, 1891. Used since January, 1887. "A monogram composed of the letters 'T F C.'"

19,116.—Emulsions, Gulick & Co., Terre Haute, Ind. Application filed January 28th, 1891. Used since November, 1889. "The word 'Glycolein.'"

19,120.—Veterinary remedies, John E. Jayne, De Witt, Mich. Application filed January 27th, 1891. Used since January 1st, 1891. "The monogram-symbol 'J E J.'"

19,121.—Remedies for diseases of the throat and lungs, Alfred O. Kring, St. Louis, Mo. Application filed January 30th, 1891. Used since November 1st, 1890. "The word 'Anticof.'"

19,122.—Remedy for diseases of the throat and lungs, Charles Leslie & Co., St. Louis, Mo. Application filed January 19th, 1891. Used since July 1st, 1890. "The words 'Leslie's Coughine.'"

19,123.—Internal and external remedy for skin diseases, P. A. Mandabach, Columbus, Ohio. Application filed December 24th, 1890. Used since February 15th, 1890. "The word 'Kaloderm.'"

19,130.—Remedy for rheumatism and kindred ailments, Morris Rosenberg, Philadelphia, Pa. Application filed January 21st, 1891. Used since December 9th, 1890. "The words 'French Oil' associated with the representation of a man seated in a chair, having one limb exposed, which is being rubbed by a female nurse kneeling on the floor and having at her side a bottle having a label thereon, on which appear the words 'French Oil.'"

19,142.—Cough syrup and cough drops, Francis A. Robbins, Nahant, Mass. Application filed January 22d, 1891. Used since December 1st, 1890. "The representation of a child and dog."

19,147.—Plasters and salves, Catherine A. Staab, Cleveland, Ohio. Application filed January 28th, 1891. Used since March, 1890. "The words 'St. Benedict Wonder Plaster' and the representation of a saint."

Labels.

6,465.—Title: "Henry Ost's Prepared Castor Oil," Henry Ost, Newark, N. J. Application filed February 7th, 1891.

6,466.—Title: "Eldredge's Cough Remedy," J. B. Eldredge & Co., Bridgeport, Conn. Application filed February 9th, 1891.

6,467.—Title: "Non-Alcoholic Extract of Vanilla," Alexander C. Howell, Hackettstown, N. J. Application filed January 29th, 1891.

ISSUE OF MARCH 10TH, 1891.

Patents.

448,128.—Body battery and attachments for the same, J. A. Crisp and G. F. Webb, Jefferson, Ohio.

447,926.—Obtaining bromine and iodine, H. H. Wing, Buffalo, N. Y.

447,857.—Galvanic apparatus for the human body, P. G. Williams, Brooklyn, N. Y.

447,811.—Gymnastic apparatus, C. H. Dinkelman, St. Louis, Mo.

447,823.—Laryngoscope and tongue depressor combined, G. Henckel, Chicago, Ill.

447,870.—Obstetrical harness, W. A. Conant, Paw Paw Grove, Ill.

447,761.—Speculum, W. E. Clough, Oxford, Ohio.

448,133.—Suppository mould, E. L. Cushing, Albion, N. Y.

448,150.—Surgical explorer, F. K. Hesse, Boston, Mass.

Trade Marks.

19,151.—Soap, perfumery, cosmetics, and like toilet preparations, William S. Thomson, London, England. Application filed January 27th, 1891. Used since January 1st, 1890. "The word 'Cucumber.'"

19,152.—Remedy for epilepsy and other nervous diseases, Samuel Allen Richmond, Tuscola, Ill. Application filed January 28th, 1891. Used since July, 1884. "The pictorial representation of a figure of a man standing upright and showing the venous system."

19,154.—Remedy for the cure of catarrh, Peter M. Hunt, Pittsburg, Pa. Application filed October 4th, 1890. Used since April 26th, 1890. "The portrait of the registrant with the fac-simile signature 'P. M. Hunt.'"

19,160.—Certain named dietetic products, Gesellschaft für Fabrikation Diätetischer Produkte, Ed. Loeflund & Co., Stuttgart, Germany. Application filed October 23d, 1890. Used since August 26th, 1875. "The representation of a shield and a monogram therein composed of the letters 'L L.'"

19,161.—Kidney, liver, and bladder remedy, Dr. Kilmer & Co., Binghamton, N. Y. Application filed February 11th, 1891. Used since December 1st, 1890. "The representation of a rooster."

19,162.—Medicated wine, P. Lebeault & Co., Paris, France. Application filed February 3d, 1891. Used since 1871. "The words 'Vin de Bugeaud.'"

19,163.—Medicated wine, P. Lebeault & Co., Paris, France. Application filed February 3d, 1891. Used since 1871. "The representation of an alembic and the signature 'Bugeaud' in fac-simile."

19,164.—Medicated wine, P. Lebeault & Co., Paris, France. Application filed February 3d, 1891. Used since 1871. The signature 'Lebeault et Cie' in fac-simile."

19,165.—Remedy for toothache, neuralgia, and other nervous diseases, William Tack, Hilton, N. J. Application filed February 4th, 1891. Used since June, 1885. "The word 'Den-Tholine."

19,169.—Hair restoratives, Charles H. Pape, St. Louis, Mo. Application filed February 3d, 1891. Used since 1865. "The words 'Spiritus Capilli' and the portrait of Dr. Pape."

19,170.—Certain named remedies, Protection Papier Co., Philadelphia, Pa. Application filed January 28th, 1891. Used since July, 1890. "The word 'Protection.'"

Labels.

6,472.—Title: "Directions for Using Clevenger's Hair Balsam," Clevenger Hair Balsam Co., Minneapolis, Minn. Application filed March 28th, 1890.

6,473.—Title: "Syrup of Prunes" (for a medicine), E. H. Bindley & Co., Terre Haute, Ind. Application filed February 11th, 1891.

6,474.—Title: "Dr. Groves' Anodyne for Infants," John D. Groves, Philadelphia, Pa. Application filed February 13th, 1891.

ISSUE OF MARCH 17TH, 1891.

Patents.

448,276.—Spectacle or eyeglass shade, J. F. Strange, New Bedford, Mass.

448,305.—Exercising machine, A. I. Thayer, Newark, N. J.

448,350.—Single delivery pill box, F. Koch, Berlin, Germany.

448,353.—Exercising apparatus, F. Medart, St. Louis, Mo.

448,361 and 448,362.—Manufacturing and preparing nitrate of ammonia, R. S. Penniman, Dover, N. J.

448,541.—Making iodine by electrolysis, T. Parker and A. E. Robinson, Wolverhampton, England.

448,555.—Medicine dropper, F. B. Spooner, Brooklyn, N. Y.

Trade Marks.

19,195.—Hair tonic, Edmund J. Hickey, Augusta, Ga. Application filed January 30th, 1891. Used since May 16th, 1890. "The word 'Hairaline.'"

19,197.—Hair tonic, William P. T. Ragio, Nashville, Tenn. Application filed October 17th, 1890. Used since July 1890. "The word 'Ragio's' above a circular disc bearing the representation of a dressing-case or bureau with crossed comb and shears before it."

19,199.—Embrocation for rheumatism, neuralgia, and similar ailments, Eugene Wunsch, Cincinnati, Ohio. Application filed February 4th, 1891. Used since September, 1890. "The words 'Martha Washington Liniment,' and the portrait of Martha Washington."

Labels.

6,475.—Title: "G. L. McGreevy's Compound Tonic," George L. McGreevy, Baltimore, Md. Application filed February 21st, 1891.